

File NR S2-30063
WR Doc ID 2222825

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE
7/18/2002

WATER RIGHT NUMBER
S2-30063

MAILING ADDRESS
WA DEPARTMENT OF FISH & WILDLIFE
600 CAPITOL WAY N
OLYMPIA WA 98501-9990

SITE ADDRESS (IF DIFFERENT)
DESCHUTES RIVER HATCHERY
(PIONEER PARK)
5800 HENDERSON BOULEVARD
TUMWATER WA 98501

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
21	CFS	Non-consumptive

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON- ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Fish propagation	21		CFS			01/01 - 12/31

Source Location

COUNTY	WATERBODY	TRIBUTARY TO				WATER RESOURCE INVENTORY AREA	
THURSTON	DESCHUTES RIVER	PUGET SOUND				13-DESCHUTES	
SOURCE FACILITY/DEVICE	PARCEL	TWP	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
DESCHUTES RIVER	12701210201	17N	02W	01	NW NW	46.9953972 N	-122.8821778

Datum: NAD83/WGS84

Place of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)

12701210201, 12701220200, 12836330000, 12702110100, 12835440100

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

That portion of NW ¼, NW ¼ S1 T17N R2W lying north of the Deschutes River; except the city street known as Henderson Blvd.

AND

That portion of NE ¼ NE ¼ S2 T17N R2W lying north of the Deschutes River

AND

That portion of SW ¼ SW ¼ S36 T18N R2W lying south of the railway right-of-way; except the city street known as Henderson Blvd.

AND

That portion of E¼, SE ¼ SE ¼ S35 T18N R2W lying south of the railway right-of-way.

Proposed Works

A cast-in-place concrete surface water intake will be installed on the north bank of the Deschutes River, about 450 feet downstream of the Henderson Boulevard Bridge. The intake will be equipped with submersible pumps housed in a buried vault. The intake will be sized to divert up to 21 cfs.

Development Schedule**BEGIN PROJECT**

September 1, 2019

COMPLETE PROJECT

September 1, 2023

PUT WATER TO FULL USE

September 1, 2024

Measurement of Water Use

How often must water use be measured?

Monthly

How often must water use data be reported to Ecology?

Annually (Jan 31)

What volume should be reported?

Total Annual Volume (ac-ft/yr)

What rate should be reported?

Annual Peak Rate of Withdrawal (cfs)

Provisions**Measurements, Monitoring, Metering and Reporting**

An approved measuring device shall be installed and maintained for the source identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.

Recorded water use data can be submitted via the Internet. To set up an Internet reporting account, contact the Southwest Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Southwest Regional Office for forms to submit your water use data.

WAC 173-173 describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Department of Fish and Wildlife Requirement(s)

The intake(s) must be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091. Attention: Habitat Program, Phone: (360) 902-2534 if you have questions about screening criteria. <http://wdfw.wa.gov/about/contact/>

Proof of Appropriation


The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. S2-30063 subject to existing rights and the provisions specified above.

Signed at Olympia, Washington, this 8th day of April 2015.


Michael J. Gallagher, Section Manager

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Mailing Addresses	Street Addresses
Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903	Pollution Control Hearings Board 1111 Israel RD SW Ste 301 Tumwater, WA 98501
Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608	Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503

- Please send a copy of your appeal to:

Michael J. Gallagher, Section Manager
Water Resources Program
Southwest Regional Office
P.O. Box 47775
Olympia WA 98504-7775

For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>. To find laws and agency rules visit the Washington State Legislature Website: <http://www1.leg.wa.gov/CodeReviser>.

INVESTIGATOR'S REPORT

Application for Water Right -- Washington Department Of Fish & Wildlife
Water Right Control Number S2-30063
Tammy Hall, Department of Ecology

BACKGROUND

Priority Processing

This application qualifies for priority processing under WAC 173-152-050-2(c). The proposed use is non-consumptive and will substantially enhance the quality of the natural environment; therefore it can be processed ahead of competing applications.

Description and Purpose of Proposed Application

On July 18, 2002, Richard Eltrich, representing Washington Department of Fish and Wildlife (WDFW) filed Surface Water Application S2-30063 to divert 21 cubic feet per second (cfs) and 6,900 ac-ft (ac-ft) per year from the Deschutes River for non-consumptive use for fish propagation.

Table 1 Application Summary

<i>Attributes</i>	<i>Summary</i>
Applicant	Washington Department Of Fish & Wildlife
Priority Date	7/18/2002
Instantaneous Quantity	21 cfs
Annual Quantity	Non-consumptive
Purpose of Use	Fish propagation
Period of Use	Year round as needed
Place of Use	That portion of NW ¼, NW ¼ S1 T17N R2W lying north of the Deschutes River; except the city street known as Henderson Blvd. AND That portion of NE ¼ NE ¼ S2 T17N R2W lying north of the Deschutes River AND That portion of SW ¼ SW ¼ S36 T18N R2W lying south of the railway right-of-way; except the city street known as Henderson Blvd. AND That portion of E¼ SE ¼ SE ¼ S35 T18N R2W lying south of the railway right-of-way.

Table 2 Location of proposed point of diversion

Source Name	Parcel	Twn	Rng	Sec	QQ Q	Latitude	Longitude
Deschutes River	12701210201	17N	2W	1	NWNW	46.9953972 N	-122.8821778

Legal Requirements for Approval of Appropriation of Water

In accordance with RCW 90.03.290, in order for Ecology to approve a water right application, each element of this 4-part test must be satisfied:

- Water must be available.
- There must be no impairment of existing rights.
- The water use must be beneficial.
- The water use must not be detrimental to the public interest.

Laws governing the water right permitting process are discussed in RCW 90.03.250 through 90.03.340 and RCW 90.44.050.

Public Notice

RCW 90.03.280 requires public notice of a proposed withdrawal in an area newspaper of general circulation. The notice must be published once a week, for two consecutive weeks. Notice of S2-30063 and G2-30062 was published in *The Olympian* on August 30 and September 6, 2002. No comments or protests were received.

During the first posting of the draft report of examination and associated investigator's report in 2012, comments were received from the city of Tumwater (City) and the Squaxin Island Indian Tribe. These comments were primarily in relation to the associated groundwater application (G2-30062) and are addressed in that Report of Examination.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Department of Fish and Wildlife of applications to divert, withdraw or store water (RCW 77.57.020). Steve Boessow of the Washington Department of Fish and Wildlife (WDFW) provided a letter to Ecology on August 22, 2002 stating that the Habitat Program has no objections to this application.

Ecology's Water Quality Program supports this project (Ecology 2003). State Environmental Policy Act (SEPA)

A SEPA determination evaluates if a proposed withdrawal will cause significant adverse environmental impacts. A SEPA threshold determination is required for the following conditions:

- Surface water applications for more than one cubic feet per second (cfs). For agricultural irrigation, the threshold increases to 50 cfs, if the project isn't receiving public subsidies.
- Groundwater applications requesting more than 2,250 gpm.
- Projects with several water right applications where the combined withdrawals meet the conditions listed above.
- Projects subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA).

- Applications that are part of several exempt actions that collectively trigger SEPA under WAC 197-11-305.

A SEPA environmental checklist was prepared to cover the complete hatchery project, including the water right applications that consist of a surface water right for 21 cfs and a groundwater right for 1,000 gpm.

Ecology has reviewed the Mitigated Determination of Nonsignificance issued November 15, 2004 for the Deschutes Watershed Center by Washington Department of Fish and Wildlife, the SEPA lead agency.

INVESTIGATION

This Report of Examination (ROE) serves as the written findings of fact concerning all things investigated regarding Water Right Application No. S2-30063.

The following information was used to evaluate this application:

- State Surface Water Code, administrative rules, and policies.
- Water right certificates, permits, claims, and applications on record with the Department of Ecology.
- Topographic and local area maps.
- Materials submitted by the Applicant in support of the application.
- Notes from a site visit on April 26, 2012 conducted by Tammy Hall (Ecology).
- Hydrogeologic memorandum written by Tammy Hall, licensed hydrogeologist with Water Resources Southwest Regional Office, dated June 13, 2012.

Project Location and Site Description

Pioneer Park is on the north side of the Deschutes River, downstream of the Henderson Boulevard Bridge in the City of Tumwater. The site is about 44 acres; however, the hatchery facility will occupy about 8.5 acres.

See Attachments #1 and #2.

The hatchery will function to incubate and hatch salmonid eggs and complete early rearing through release of salmonid smolts and fingerlings. The facility will also provide juveniles fish for final rearing and release at the WDFW's Tumwater Falls Park facility. Approximately 3.5 million salmonids will be reared and released from the Pioneer Park facility into the Deschutes River. The hatchery will use both surface water and groundwater. The groundwater portion of this facility is addressed in Ground Water Application No. G2-30062.

Proposed Use, System Description, and Water Demand

The proposed use is fish propagation.

Collected salmonid--eggs will be incubated and hatched using pathogen free groundwater to avoid disease then reared in ponds supplied with a combination of ground and surface water.

A cast-in-place concrete surface water intake will be installed on the north bank of the Deschutes River, about 450 feet downstream of the Henderson Boulevard Bridge. The intake will be equipped with submersible pumps housed in a buried vault. The intake will be sized to divert up to 21 cfs. (HDR Fishpro, 2007)

Surface water use is considered non-consumptive. Water diverted will be returned to the Deschutes River about 30 feet downstream from the diversion. The amount of water diverted at any given time will depend on the needs of the fish being raised. The diversion rate will be lowest in July (1 cfs) and peak in April and May (21 cfs) (HDR Fishpro, 2007). Anticipated monthly diversion rates are summarized in Table 3.

Table 3. Anticipated diversion rates.

<i>Month</i>	<i>Approximate Diversion rate (cfs)</i>	<i>Month</i>	<i>Approximate Diversion rate (cfs)</i>	<i>Month</i>	<i>Approximate Diversion rate (cfs)</i>
January	4.8	May	21	September	2
February	13.5	June	2.5	October	5
March	18	July	1	November	4.8
April	21	August	2	December	2.5

(HDR Fishpro, 2007)

Water from the intake will feed through a common supply main to a system consisting of cyclone separators to remove sediment, then conveyed to a head-tank. The water level in the head-tank will be kept constant by driving the system to overflow. Overflow at the head-tank will mix with the sediment removed by the cyclone separators and routed back to the Deschutes River. (HDR Fishpro, 2007)

From the head-tank, surface water will circulate through a mainline that connects to the raceways, fish pond, and community pond. At each raceway, surface water will feed through a slotted distribution header with a manual valve to control flow.

The community pond will be supplied through a drop structure where water will flow over stop logs or a weir, then cascade into the pond. Flow into the community pond will be controlled by a valve in a below grade vault. (HDR Fishpro, 2007)

Because there will be no heavy feeding in the community pond, overflow water will not require treatment before being discharged back into the surface water system. Overflow will be pumped to either a wetland or back to the main overflow discharge point near the surface water intake. Less than 5% of the water pumped into the community pond will be dispersed to the wetland system. Water flowing through the wetland will return to the river by way of subsurface flow. (Fishpro, 2007)

Hydrologic/Hydrogeologic Evaluation

Geologic Setting

Pioneer Park is in the Deschutes River watershed, situated near the southern end of the Puget Sound lowland. The Puget Sound lowland was created when the North American continental plate converged with a denser oceanic plate of the eastern Pacific Ocean. Subsidence and volcanism allowed thick deposits to accumulate in the basin, which later were changed by folding and faulting. These deposits

are the bedrock units that underlie the Deschutes watershed and form the surrounding foothills (Snively and others., 1958; Noble and Wallace, 1966).

Continental glaciers, advancing south into the Puget Sound lowland from coastal British Columbia, covered portions of the Deschutes watershed at least twice during the Pleistocene Epoch. The most recent glacial advance occurred about 15,000 years ago. As the glaciers receded about 13,500 years ago, meltwater streams left behind thick deposits of gravel and sand. These meltwater streams cut a complex network of channels, redistributing much of this material and creating features that define the present topography of the central and northern watershed. (Sinclair and Bilhimer, 2007)

Deschutes River Hydrology

The Deschutes River originates within the steep, heavily forested Bald Hills. The river flows generally northwest for about 60 miles, before it discharges to Capitol Lake near the city of Tumwater. Elevations in the watershed range from a few feet above sea level near Capitol Lake to 3,870 feet at Cougar Mountain in the Bald Hills. (Sinclair and Bilhimer, 2007)

Seepage runs in 1988 of the lower 24.9 miles of the Deschutes River showed an average gain of gain of 2.16 cfs per mile indicating groundwater discharge sustains summer baseflows in the Deschutes. Additionally, groundwater level measurements made during a canvassing of nearly 800 area wells during the summer of 1988 also support this relationship. Groundwater generally moves from upland recharge areas in the interior of Thurston County toward natural points of discharge along the Puget Sound shoreline and the lower Deschutes River (Drost, 1999, Sinclair and Bilhimer, 2007).

In the Pioneer Park area, the Deschutes River is a gaining stream that receives baseflow from groundwater discharge.

Site Conditions

Pioneer Park is located in the relatively flat floodplain on the Deschutes River. The current channel of the Deschutes River borders the south perimeter of the park. (Golder, 2007)

The proposed Deschutes Watershed Center will be in the central portion of the park, where the land surface is broad and flat. Topographic relief in the central portion of the park ranges from three to five feet. Numerous sinuous swales and depressions are found throughout the open area and likely represent remnants of stream channels that have been partially filled in. (Golder, 2007)

Geologic mapping by Walsh (2003) shows the Pioneer Park site is underlain by Deschutes River alluvium deposited during migration of the river channel. The alluvial deposits consist of fine-grained oxbow lake deposits, over-bank flood deposits, and coarse channel deposits. The alluvium overlies a 450-foot thick sequence of sand.

Other Rights Appurtenant to the Place of Use

Presently, there are no other water rights issued for this project. However, at the same time WDFW filed this application, they also filed Ground Water Application No. G2-30062. Both applications (S2-30063 and G2-30062) are considered one project and are being processed concurrently.

Application G2-30062 requests to pump 1,000 gpm and 1,600 ac-ft from a well completed in the Deschutes Valley Aquifer (DVA). Water associated with G2-30062 will be also be used for fish

propagation. Water from both G2-30062 and S2-30063 will be treated and discharged to the Deschutes River at the same location after use.

Findings of Investigation

Water Availability

This use is non-consumptive. Because the proposed use will not diminish the source, water is available for appropriation.

The U.S. Geological Survey (USGS) maintains streamflow gaging stations at two locations along the Deschutes River: one at river mile (RM) 2.4 (station 12080010, Deschutes River at E Street in Tumwater), and one at RM 24.9 (station 12079000, Deschutes River near Rainier).

Flow data collected at 12080010 from 1945 until 2010 show flows are highest from December through April and lowest in August and September. High demand months for this project correspond to months where flows in the Deschutes River are highest.

Impairment of Existing Rights

Other water right holders will not be impaired.

Impacts to Surface Water

Water use associated with this project will not impair instream flows. The points of diversion and discharge are a short distance apart and flows in the Deschutes River will be unaffected.

The Water Resources Management Program for the Deschutes River Basin, WRIA 13, was adopted in 1988. Chapter 173-513 WAC establishes instream flows for the Deschutes River from November 1 through April 14 and closes the river to new surface water diversions from April 15 to October 31 each year. Instream flows for the Deschutes River are set at RM 3.4 (USGS Gage 10208000) and summarized in Table 4. This gage is no longer maintained. The nearest operating gage on the Deschutes River is one mile downstream at RM 2.4 (station 12080010, Deschutes River at E Street in Tumwater),

Table 4. Instream flows for the Deschutes River at RM 3.4, USGS Gage 120080000.

<i>Month</i>	<i>Flow rate (cfs)</i>	<i>Month</i>	<i>Flow rate (cfs)</i>
December 15- March 31	400	November 1-14	150
April 1-14	350	November 15-31	200
April 15-October 31	Closed	December 1-14	300

Beneficial Use

The use of water for fish propagation is defined in statute as a beneficial use (RCW 90.54.020(1)).

Public Interest Considerations

Approving this application is not contrary to the public interest.

Maintaining viable salmonid populations is a treaty obligation of the State of Washington to the tribes. Cultural, economic, recreational, and significant environmental benefits will result from the issuance of this surface water permit. Salmonids hatched and reared at the facility, will be released to the

Deschutes River to enhance the fishery throughout the Puget Sound Basin and within the watershed. Fish produced by this program will provide harvest in Washington's recreational, commercial, and treaty tribal fisheries. These fisheries contribute over \$500,000 annually to the state economy. (Fishpro, 2007).

Construction and operation of the Deschutes Watershed Center hatchery will allow decommissioning net pens in Percival Cove in Capitol Lake that are contributing to water quality degradation. Ecology's Water Quality Program supports the construction of a properly designed hatchery on the Deschutes River (Ecology, 2003).

Consideration of Protests and Comments

No protests were filed against this application.

CONCLUSION AND RECOMMENDATIONS

This application requests surface water for fish propagation.

- Water is available for appropriation.
- Existing water rights will not be impaired.
- Fish propagation is considered a beneficial use.
- Approving this appropriation is not detrimental to the public interest.

Based on the above investigation and conclusions, I recommend that this request for a water right be approved in the amounts, within the limits listed, and subject to the provisions.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

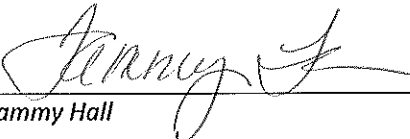
- 21 cfs.
- Non-consumptive.
- Fish propagation.

Proposed Point of Diversion:

- NW¼, NW¼, Section 1, Township 17 North, Range 2 WWM.

Place of Use:

- As described on Page 1 of this Report of Examination.


Tammy Hall

4/12/2015
Date

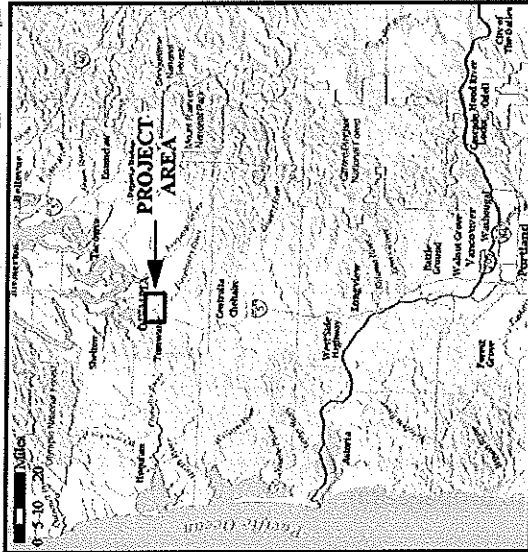
If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

ATTACHMENT 1

Water Right Application S2-30063
 Sec. 1, 2 T. 17 N. R. 2 W. W.M.
 Sec. 35, 36 T. 18 N. R. 2 W. W.M.
 WRIA 13 - Thurston County



DEPARTMENT OF
 ECOLOGY
 DIVISION OF WATER



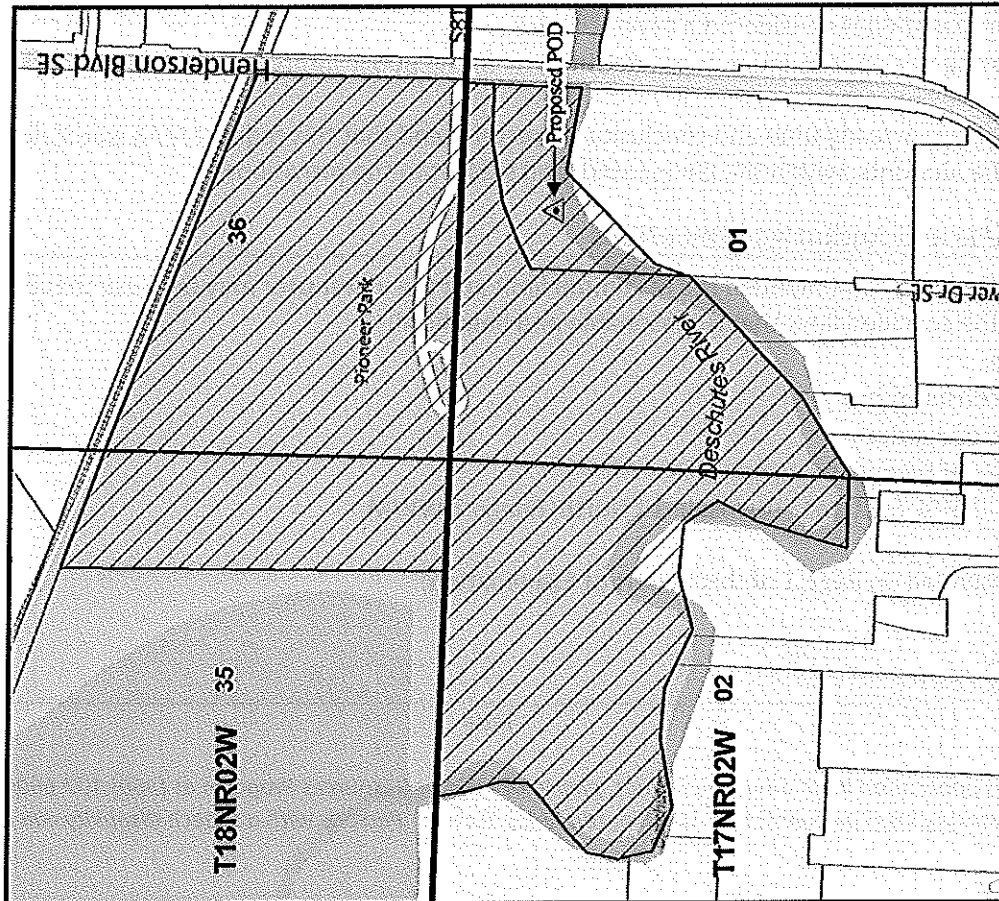
Legend

- PROPOSED POINT OF DIVERSION (POD)
- PLACE OF USE (POU)
- PARCELS
- SECTION LINES

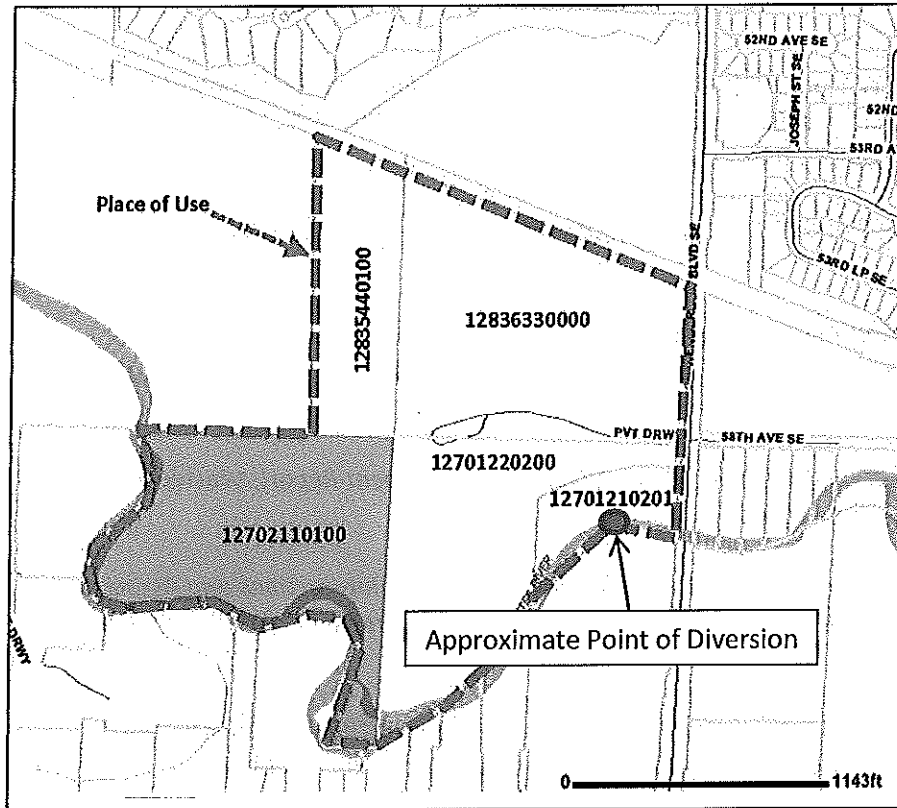
Comments:

Place of use, points of withdrawal/diversion are as defined on the cover sheet under the heading, 'LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED.'

Map Created 11/18/2011



Attachment 2: Tax parcels for points of diversion and place of use.



References

- Drost, B.W., Ely, D.M., and Lum, W.E. II., 1999, *Conceptual model and numerical simulation of the groundwater flow system in the unconsolidated sediments of Thurston County, WA.*, U.S. Geological Survey, Water-Resources Investigations Report 99-4165, 254 p.
- Ecology, 2003. E-mail from Greg Cloud, Water Quality Program, to Deb Hunemuller, Water Resources program.
- Golder Associates, Inc., 2007 *Draft Report on Geotechnical Investigation Report-Tast 103, WDFW Deschutes Watershed Center, Pioneer Park and Tumwater Falls Park, Tumwater, Washington*, June 6, 2007.
- HDR Fishpro, 2007, *Draft Deschutes Watershed Center, Concept Development Report*, Washington Department of Fish and Wildlife, June 2007.
- Kirk Sinclair, Dustin Bilhimer, *Assessment of Surface Water / Groundwater Interactions and Associated Nutrient Fluxes in the Deschutes River and Percival Creek Watersheds, Thurston County, January 2007*, Publication No. 07-03-002.
- Noble, J.B. and Wallace, E.F., 1966, *Geology and groundwater resources of Thurston County, WA. Volume 2: Washington Division of Water Resources*, Water-Supply Bulletin No. 10, 141 p.
- Snively P.D., Jr., Brown, R.D., Jr., Roberts, A.E., and Rau, W.W., 1958, *Geology and coal resources of the Centralia- Chehalis district, WA.*, U.S. Geological Survey Bulletin 1053, 159 p.
- Walsh, T.J., Logan, R.L., Schasse, H.W., and Polenz M., 2003, *Geologic map of the Tumwater 7.5 minute quadrangle, Thurston County, WA*. Washington Division of Geology and Earth Resources, Open File Report 2003-25, 1 sheet, scale 1:24,000.